



WEB APPLICATION FIREWALL

# FortiWeb RESTful API Reference

**VERSION 5.6**

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FortiWeb 5.6 RESTful API Reference

1st Edition

# TABLE OF CONTENTS

FortiWeb RESTful API overview.....	4
REST principles.....	4
Response format.....	4
Accessing the RESTful API.....	4
Supported API methods.....	5
URL format.....	8
Authentication.....	9
Specifying resources.....	9
Examples of changing settings.....	36
Retrieve all static routes (GET).....	36
Create a new static route (POST).....	36
Update an existing static route (PUT).....	37
Delete an existing static route (DELETE).....	38
Request failures.....	38
Unsupported method.....	38
Other failure.....	39
Manipulating FortiWeb CLI through RESTful API.....	40
Resource name, URL format and supported method.....	40
Control messages.....	40
path & child_path.....	40
action.....	41
mkey & child_mkey.....	42
Examples of manipulating CLI through cli_direct_view.....	42
Retrieve all static routes.....	42
Create a new static route.....	43
Update an existing static route.....	44
Search an existing static route.....	45
Delete an existing static route.....	45
Retrieve all sub-rules of a start page rule.....	46
Create a new sub-rule to a start page rule.....	47
Update a sub-rule of a start page rule.....	48
Search an existing sub-rule of a start page rule.....	48
Delete a sub-rule of a start page rule.....	49

## FortiWeb RESTful API overview

FortiWeb provides an API that follows standard Representational State Transfer design principles (RESTful API) for users (a FortiWeb Manager or the third-party) to access and modify the settings of a FortiWeb appliance.

### REST principles

The REST architecture consists of clients (FortiWeb Manager or the third-parties) and servers (FortiWeb appliances). FortiWeb's states and functions are separated into resources (see [Specifying resources](#)). Individual resources are identified by using URIs (see [URL format](#)). All of the resources have a common interface for interaction between clients and the resources. This common interface includes well-defined operations (Add/Fetch/Update/Delete data through GET/POST/PUT/DELETE) and content types (see [Supported API methods](#) and [URL format](#)). To manipulate the resources, clients initiate requests to FortiWeb through the representations of these resources. According to information described in the requests, FortiWebAPI triggers corresponding processes and returns responses (see [Examples of changing settings](#)). Programs communicate with the RESTful API over HTTPS, the same protocol that your web browser uses to interact securely with web pages.

In 5.6 release, FortiWeb's CLI becomes one of the resources, which means a special API interface is introduced to manipulate FortiWeb's CLI through the REST architecture. A resource name (`cli-direct-view`), supported method and a set of control messages are well-defined so that clients can manipulate CLI through this RESTful API. It starts as normal with requests initiated by clients and contains necessary information describing how a command is processed. Representations are eventually transferred to command executions. It simplifies the original REST architecture, and at the same time management of FortiWeb's states and functions is preserved. See [Manipulating FortiWeb CLI through RESTful API](#).

### Response format

The FortiWeb RESTful API provides responses in JSON format.

### Accessing the RESTful API

You can access the FortiWeb API from most browsers using the GET method.

However, many browsers require add-ons for extended operations such as PUT. You can make more complicated, scripted queries using utilities such as cURL. In addition, most scripting languages such as Perl or Python have built-in library calls that can interact with a RESTful API.

The examples in this document make requests using cURL. cURL is more flexible than using a browser alone, works across platforms, and most scripts can call it. It is not as flexible as native scripting languages, but it is useful for illustrating how the API functions.

## Supported API methods

The FortiWeb RESTful API supports the following methods.

Method	URI	Operation description	Success response code
GET	/<resource_name>/	Retrieves all records	200 OK 401 Unauthorized 404 Not Found 405 Not Allowed 500 Internal Server Error
	/<resource_name>/<resource_id>/<sub_resource_name>	Retrieves all sub-records	200 OK 401 Unauthorized 404 Not Found 405 Not Allowed 500 Internal Server Error

Method	URI	Operation description	Success response code
POST	/<resource_name>/	Creates a new record	200 OK
		Note that POST has different operations for resource cli_direct_view, see <a href="#">Manipulate FortiWeb CLI through RESTful API.</a>	401 Unauthorized 404 Not Found 405 Not Allowed 500 Internal Server Error
	/<resource_name>/<resource_id>/<sub_resource_name>	Creates a new sub-record	200 OK
			401 Unauthorized 404 Not Found 405 Not Allowed 500 Internal Server Error

Method	URI	Operation description	Success response code
PUT	/<resource_name>/<resource_id>	Updates the specified record	200 OK 401 Unauthorized 404 Not Found 405 Not Allowed 500 Internal Server Error
	/<resource_name>/<resource_id>/<sub_resource_name>/<sub_resource_id>	Updates the specified sub-record	200 OK 401 Unauthorized 404 Not Found 405 Not Allowed 500 Internal Server Error

Method	URI	Operation description	Success response code
DELETE	/<resource_name>/<resource_id>	Deletes the specified record	200 OK 401 Unauthorized 404 Not Found 405 Not Allowed 500 Internal Server Error
	/<resource_name>/<resource_id>/<sub_resource_name>/<sub_resource_id>	Deletes the specified sub-record	200 OK 401 Unauthorized 404 Not Found 405 Not Allowed 500 Internal Server Error

## URL format

The URLs that you use to access gateways and gateway managers use the following format:

```
https://<server_name>/api/<api_version>/<resource_name>/[<resource_id>]/[<sub_resource_name>]/[<sub_resource_id>]
```

where:

- <server\_name> is the name or IP address of a FortiWeb with a port value of 90.
- <api\_version> is the API version (for example, v1.0)
- <resource\_name> is the name of the FortiWeb setting
- <resource\_id> is a unique identifier for the FortiWeb setting (for example, an index number or the name of a virtual server or policy)
- <sub\_resource\_name> is the name of the FortiWeb sub-setting
- <resource\_id> is a unique identifier for a FortiWeb sub-setting

For more information on the <resource\_name> and <sub\_resource\_name> values, see [Specifying resources on page 9](#).

For accessing through resource name cli-direct-view, <resource\_id>, <sub\_resource\_name> and <resource\_id> are not required, see [Manipulating FortiWeb CLI through RESTful API](#). The format will be just:



`https://<server_name>/api/<api_version>/cli-direct-view`

## Authentication

The RESTful API HTTPS requests require an authorization value. Use the username and password encoded using base 64.

For example, the username `admin` and an empty password (the default):

Authorization: YWRtaW46

You can use the API to configure user passwords on a FortiWeb.

## Specifying resources

Currently, you can use the API to access the following resources.

Resource name	Sub-resource name	Supported methods	Web UI location
<code>cli-direct-view</code>	—	POST	—  (For accessing the CLI, see <a href="#">Manipulating FortiWeb CLI through RESTful API</a> )
<code>System/Status/Status</code>	—	GET	System > Status > Status
<code>System/Status/PolicyStats?policy=&lt;policy_name&gt;</code>	—	GET	System > Status > Policy Status
<code>System/Status/SystemResources</code>	—	GET	System > Status > Status
<code>System/Status/StatusOperation</code>	—	GET	System > Status > Status
<code>System/Status/StatusOperationReboot</code>	—	POST	System > Status > Status
<code>System/Status/StatusOperationReset</code>	—	POST	System > Status > Status

Resource name	Sub-resource name	Supported methods	Web UI location
System/Status/ StatusOperationShutdown	—	POST	System > Status > Status
System/Status/ AdministrativeDomain	—	POST	System > Status > Status
System/Status/ VMLicenseUpload	—	POST	System > Status > Status
System/Status/ VMLicense	—	POST	System > Status > Status
System/Status/ HostName	—	GET, POST	System > Status > Status
System/Network/Interface	—	GET, POST, PUT, DELETE	System > Network > Interface
System/Network/ InterfaceType	—	GET	System > Network > Interface
System/Network/InterfaceList	—	GET	System > Network > Interface
System/Network/ SnmpInterfaceList	—	GET	System > Network > Interface
System/Network/ StaticRoute	—	GET, POST, PUT, DELETE	System > Network > Static Route
System/Network/ RoutePortList	—	GET	System > Network > Static Route
System/Network/ PolicyRoute	—	GET, POST, PUT, DELETE	System > Network > Policy Route
System/Network/DNS	—	GET, PUT	System > Network > DNS
System/Network/FailOpen	—	GET, POST, PUT	

Resource name	Sub-resource name	Supported methods	Web UI location
System/Network/Vzone	—	GET, POST, PUT, DELETE	System > Network > V-zone
System/Network/VzoneInterface	—	GET	System > Network > V-zone
System/Config/Config-Synchronization	—	GET, PUT	System > Config > Config > Synchronization
System/Config/HA-Config	—	GET, PUT	System > Config > HA > Config
System/Config/ConfigSynchronizationTest	—	GET	System > Config > Config-Synchronization
System/Config/SNMP	—	GET, PUT	System > Config > SNMP
System/Config/SnmpNewSnmpCommunity	—	GET, POST, PUT, DELETE	System > Config > SNMP
System/Config/Operation	—	GET, PUT	System > Config > Operation
System/Config/OperationVirtualServer	—	GET	System > Config > Operation
System/Config/OperationServerPolicy	—	GET	System > Config > Operation
System/Config/Advanced	—	GET, PUT	System > Config > Advanced
System/Config/FortiGuard	—	GET, PUT	System > Config > FortiGuard
System/Config/FortiGuardUpdateNow	—	POST	System > Config > FortiGuard
System/Config/SignatureUpdate	—	GET, POST	System > Config > FortiGuard

Resource name	Sub-resource name	Supported methods	Web UI location
System/Config/ImportSignatureUpdate	—	POST	System > Config > FortiGuard
System/Config/ReplacementMessage	—	GET, POST, PUT	System > Config > Replacement Message
System/Config/ReplaceMessageImage	—	GET	System > Config > Replacement Message
System/Config/ManageImages	—	GET	System > Config > Replacement Message
System/Config/ReplacementImage	—	POST, PUT	System > Config > Replacement Message
System/Config/HttpResponseCode	—	POST, PUT	System > Config > Replacement Message
System/Config/ReplaceMessageViewInitParams	—	GET	System > Config > Replacement Message
System/Config/FortiSandbox	—	GET, POST	System > Config > FortiSandbox
System/Config/FortiSandboxTest	—	GET	System > Config > FortiSandbox
System/Admin/Administrators	—	GET, POST, PUT, DELETE	System > Admin > Administrators
System/Admin/AccessProfile	—	GET, POST, PUT, DELETE	System > Admin > Access Profile
System/Admin/AccessProfileList	—	GET	System > Admin > Access Profile
System/Admin/Settings	—	GET, PUT	System > Admin > Settings

Resource name	Sub-resource name	Supported methods	Web UI location
System/Admin/ AdminDomainCondition	—	GET	
System/Certificates/ Local	—	GET, POST, PUT, DELETE	System > Certificates > Local
System/Certificates/ LocalList	—	GET	System > Certificates > Local
System/Certificates/ LocalDownload	—	GET (Download)	System > Certificates > Local
System/Certificates/ LocalOK	—	GET	System > Certificates > Local
System/Certificates/ SNI	—	GET, POST, PUT, DELETE	System > Certificates > SNI
System/Certificates/CA	—	GET, POST, PUT, DELETE	System > Certificates > CA
System/Certificates/ CAList	—	GET	System > Certificates > CA
System/Certificates/ CAGroup	—	GET, POST, PUT, DELETE	System > Certificates > CA Group
System/Certificates/ CAGroupList	—	GET, POST, PUT, DELETE	System > Certificates > CA Group
—	CAGroupEditCA GroupMember	GET, POST, PUT, DELETE	System > Certificates > CA Group
System/Certificates/ IntermediateCA	—	GET, POST, PUT, DELETE	System > Certificates > Intermediate CA
System/Certificates/ IntermediateCAList	—	GET	System > Certificates > Intermediate CA

Resource name	Sub-resource name	Supported methods	Web UI location
System/Certificates/ IntermediateCAGroup	—	GET, POST, PUT, DELETE	System > Certificates > Intermediate CA Group
—	IntermediateCAGroup EditCAGroupMember	GET, POST, PUT, DELETE	System > Certificates > Intermediate CA Group
System/Certificates/ IntermediateCAGroupList	—	GET	System > Certificates > Intermediate CA Group
System/Certificates/CRL	—	GET, POST, PUT, DELETE	System > Certificates > CRL
System/Certificates/ CRLList	—	GET	System > Certificates > CRL
System/Certificates/ CertificateVerify	—	GET, POST, PUT, DELETE	System > Certificates > Certificate Verify
System/Certificates/ CertVerifyList	—	GET	System > Certificates > Certificate Verify
System/Certificates/ URLBasedClient CertificateGroup	—	GET	System > Certificates > URL Certificate
System/Certificates/ CountryRegion	—	GET	
System/Maintenance/ BackupRestore	—	GET, PUT	System > Maintenance > Backup & Restore
System/Maintenance/ RestoreConfiguration	—	POST	System > Maintenance > Backup & Restore
System/Maintenance/ RestoreConfigurationChecker	—	POST	System > Maintenance > Backup & Restore

Resource name	Sub-resource name	Supported methods	Web UI location
System/Maintenance/BackupConfiguration	—	POST	System > Maintenance > Backup & Restore
System/Maintenance/FirmwareUpgradeDowngrade	—	POST	System > Maintenance > Backup & Restore
System/Maintenance/BackupRestoreFirmwareBoot	—	POST	System > Maintenance > Backup & Restore
System/Maintenance/RestoreConfigurationChecker	—	POST	System > Maintenance > Backup & Restore
System/Maintenance/UploadFirmware	—	POST	System > Maintenance > Backup & Restore
System/Maintenance/DataAnalytics	—	POST	System > Maintenance > Backup & Restore
System/Maintenance/FTPBackup	—	GET, POST, PUT, DELETE	System > Maintenance > FTP Backup
System/Maintenance/SystemTime	—	GET, PUT	System > Maintenance > System Time
System/Maintenance/TimeZone	—	GET	System > Maintenance > System Time
System/Maintenance/ConsoleLog	—	GET	System > Maintenance > Console Log
User/UserGroup/UserGroup	—	GET, POST, PUT, DELETE	User > User Group > User Group
—	UserGroupEditUserGroupMember	GET, POST, PUT, DELETE	User > User Group > User Group

Resource name	Sub-resource name	Supported methods	Web UI location
User/UserGroup/UserGroupBasic	—	GET	User > User Group > User Group
User/UserGroup/UserGroupDigest	—	GET	User > User Group > User Group
User/UserGroup/UserGroupNtlm	—	GET	User > User Group > User Group
User/UserGroup/AdminGroup	—	GET, POST, PUT, DELETE	User > User Group > Admin Group
—	AdminGroupEditUserGroupMember	GET, POST, PUT, DELETE	User > User Group > Admin Group
User/UserGroup/AdminUserGroupList	—	GET	User > User Group > Admin Group
User/LocalUser/LocalUser	—	GET, POST, PUT, DELETE	User > Local User > Local User
User/LocalUser/LocalUserList	—	GET	User > Local User > Local User
User/RemoteServer/LDAPServer	—	GET, POST, PUT, DELETE	User > Remote Server > LDAP Server
User/RemoteServer/LDAPServerList	—	GET	User > Remote Server > LDAP Server
User/RemoteServer/LdapServerTest	—	POST	User > Remote Server > LDAP Server
User/RemoteServer/RADIUSServer	—	GET, POST, PUT, DELETE	User > Remote Server > Radius Server
User/RemoteServer/RADIUSServerList	—	GET	User > Remote Server > Radius Server



Resource name	Sub-resource name	Supported methods	Web UI location
User/RemoteServer/ RADIUSServerTest	—	POST	User > Remote Server > Radius Server
User/RemoteServer/ KdcServer	—	GET, POST, PUT, DELETE	User > Remote Server > KDC Server
User/RemoteServer/ NTLMServer	—	GET, POST, PUT, DELETE	User > Remote Server > NTLM Server
User/RemoteServer/ NTLMServerList	—	GET	User > Remote Server > NTLM Server
Policy/ServerPolicy/ ServerPolicy	—	GET, POST, PUT, DELETE	Policy > Server Policy > Server Policy
Policy/ServerPolicy/ ServerPolicyEnable	—	PUT	Policy > Server Policy > Server Policy
Policy/WebProtection Profile/ InlineProtectionProfile	—	GET, POST, PUT, DELETE	Policy > Web Protection Profile > Inline Protection Profile
Policy/ WebProtectionProfile/ OfflineProtectionProfile	—	GET, POST, PUT, DELETE	Policy > Web Protection Profile > Offline Protection Profile
Policy/ WebProtectionProfile/ DbFileExists	—	GET	
ServerObjects/ Server/VirtualServer	—	GET, POST, PUT, DELETE	Server Objects > Server > Virtual Server
ServerObjects/Server/ VirtualServerPortList	—	GET	Server Objects > Server > Virtual Server

Resource name	Sub-resource name	Supported methods	Web UI location
ServerObjects/ Server/ServerPool	—	GET, POST, PUT, DELETE	Server Objects > Server > Server Pool
—	EditServerPoolRule	GET, POST, PUT, DELETE	Server Objects > Server > Server Pool
ServerObjects/ Server/ServerPoolList	—	GET	Server Objects > Server > Server Pool
ServerObjects/ Server/Persistence	—	GET, POST, PUT, DELETE	Server Objects > Server > Persistence Policy
ServerObjects/ Server/PersistenceList	—	GET	Server Objects > Server > Persistence Policy
ServerObjects/Server/ HTTPContentRoutingPolicy	—	GET, POST, PUT, DELETE	Server Objects > Server > HTTP Content Routing Policy
—	HTTPContentRouting PolicyNewHTTPContent Routing	GET, POST, PUT, DELETE	Server Objects > Server > HTTP Content Routing Policy
ServerObjects/ ProtectedHostnames/ ProtectedHostnames	—	GET, POST, PUT, DELETE	Server Objects > Protected Hostnames > Protected Hostnames
—	ProtectedHostnames NewHost	GET, POST, PUT, DELETE	Server Objects > Protected Hostnames > Protected Hostnames
ServerObjects/ ProtectedHostnames/ ProtectedHostnamesNewHostList	—	GET	Server Objects > Protected Hostnames > Protected Hostnames

Resource name	Sub-resource name	Supported methods	Web UI location
ServerObjects/ ProtectedHostnames/ HostList	—	GET	Server Objects > Protected Hostnames > Protected Hostnames
ServerObjects/ Service/ HttpServiceList	—	GET	
ServerObjects/ ServerHealthCheck/ ServerHealthCheck	—	GET, POST, PUT, DELETE	Server Objects > Server Health Check > Server Health Check
—	HealthCheckRule	GET, POST, PUT, DELETE	Server Objects > Server Health Check > Server Health Check
ServerObjects/ ServerHealthCheck/ ServerHealthCheckList	—	GET	Server Objects > Server Health Check > Server Health Check
ServerObjects/Service/ Custom	—	GET, POST, PUT, DELETE	Server Objects > Service > Custom
ServerObjects/Global/ KnownSearchEngines	—	GET, PUT	Server Objects > Global > Known Search Engines
ServerObjects/Global/ PredefinedGlobal WhiteList	—	GET, PUT	Server Objects > Global > Predefined Global White List
ServerObjects/Global/ CustomGlobalWhiteList	—	GET, PUT	Server Objects > Global > Custom Global White List
ServerObjects/ X-Forwarded-For/ X-Forwarded-For	—	GET, POST, PUT, DELETE	Server Objects > X- Forward-For
—	XForwardedFor NewXForwardedForIP	GET, POST, PUT, DELETE	Server Objects > X- Forward-For

Resource name	Sub-resource name	Supported methods	Web UI location
ApplicationDelivery/ URLRewritingPolicy/ URLRewritingPolicy	—	GET, POST, PUT, DELETE	Application Delivery > URL Rewriting Policy > URL Rewriting Policy
—	URLRewritingPolicy NewURLRewritingItem	GET, POST, PUT, DELETE	Application Delivery > URL Rewriting Policy > URL Rewriting Policy
ApplicationDelivery/ URLRewritingPolicy/ URLRewritingRule	—	GET, POST, PUT, DELETE	Application Delivery > URL Rewriting Policy > URL Rewriting Rule
—	URLRewritingRule NewURLRewriting Condition	GET, POST, PUT, DELETE	Application Delivery > URL Rewriting Policy > URL Rewriting Rule
ApplicationDelivery/ URLRewritingPolicy/ URLRewritingRuleList	—	GET	Application Delivery > URL Rewriting Policy > URL Rewriting Rule
ApplicationDelivery/ AuthenticationPolicy/ AuthenticationPolicy	—	GET, POST, PUT, DELETE	Application Delivery > Authentication Policy > Authentication Policy
—	AuthenticationPolicy NewAuthentication PolicyMember	GET, POST, PUT, DELETE	Application Delivery > Authentication Policy > Authentication Policy
ApplicationDelivery/ AuthenticationPolicy/ AuthenticationRule	—	GET, POST, PUT, DELETE	Application Delivery > Authentication Policy > Authentication Rule
—	AuthenticationRule NewAuthentication RuleMember	GET, POST, PUT, DELETE	Application Delivery > Authentication Policy > Authentication Rule

Resource name	Sub-resource name	Supported methods	Web UI location
ApplicationDelivery/ AuthenticationPolicy/ AuthenticationRuleList	—	GET	Application Delivery > Authentication Policy > Authentication Rule
ApplicationDelivery/ SitePublish/ SitePublishPolicy	—	GET, POST, PUT, DELETE	Application Delivery > Site Publish > Site Publish Policy
—	SitePublishPolicy NewPublishedSiteRule	GET, POST, PUT, DELETE	Application Delivery > Site Publish > Site Publish Policy
ApplicationDelivery/ SitePublish/ SitePublishRule	—	GET, POST, PUT, DELETE	Application Delivery > Site Publish > Site Publish Rule
ApplicationDelivery/ SitePublish/ SitePublishRuleList	—	GET	Application Delivery > Site Publish > Site Publish Rule
ApplicationDelivery/ SitePublish/ SitePublishRuleStatus	—	POST, PUT	Application Delivery > Site Publish > Site Publish Rule
ApplicationDelivery/ SitePublish/ KeytabFile	—	GET, POST, PUT, DELETE	Application Delivery > Site Publish > Keytab File
ApplicationDelivery/ SitePublish/ KeytabFileList	—	GET	Application Delivery > Site Publish > Keytab File
ApplicationDelivery/ SitePublish/ ImportKeytabFile	—	POST	Application Delivery > Site Publish > Keytab File
ApplicationDelivery/ Compression/ FileCompressPolicy	—	GET, POST, PUT, DELETE	Application Delivery > Compression > File Compress Policy
—	FileCompressPolicy NewFileCompressPolicy	GET, POST, PUT, DELETE	Application Delivery > Compression > File Compress Policy

Resource name	Sub-resource name	Supported methods	Web UI location
ApplicationDelivery/ Compression/ FileUncompressPolicy	—	GET, POST, PUT, DELETE	Application Delivery > Compression > File Uncompress Policy
—	FileUncompressPolicy EditContentType	GET, POST, PUT, DELETE	Application Delivery > Compression > File Uncompress Policy
ApplicationDelivery/ Compression/ ExclusionRule	—	GET, POST, PUT, DELETE	Application Delivery > Compression > Exclusion Rule
—	ExclusionRuleNewURL	GET, POST, PUT, DELETE	Application Delivery > Compression > Exclusion Rule
ApplicationDelivery/ Compression/ ExclusionRuleList	—	GET	Application Delivery > Compression > Exclusion Rule
ApplicationDelivery/ Caching/ WebCachePolicy	—	GET, POST, PUT, DELETE	Application Delivery > Caching > Web Cache Policy
—	WebCachePolicy NewWebCachePolicy ItemRule	GET, POST, PUT, DELETE	Application Delivery > Caching > Web Cache Policy
ApplicationDelivery/ Caching/ WebCacheException	—	GET, POST, PUT, DELETE	Application Delivery > Caching > Web Cache Exception
—	WebCacheExceptionNew WebCacheExceptionRule	GET, POST, PUT, DELETE	Application Delivery > Caching > Web Cache Exception
ApplicationDelivery/ Caching/ WebCacheExceptionList	—	GET	Application Delivery > Caching > Web Cache Exception
WebProtection/ KnownAttacks/Signatures	—	GET, POST, PUT, DELETE	Web Protection > Known Attacks > Signatures

Resource name	Sub-resource name	Supported methods	Web UI location
WebProtection/ KnownAttacks/ AttacksSignaturesAdvanced	Dictionaries	GET, POST	Web Protection > Known Attacks > Signatures
---	SignatureAlertOnly	GET	Web Protection > Known Attacks > Signatures
---	AttacksSignatures AdvancedSetting	GET	Web Protection > Known Attacks > Signatures
---	SignatureDisabled	GET, POST, PUT, DELETE	Web Protection > Known Attacks > Signatures
---	SignatureAlertOnly	GET, POST, PUT, DELETE	Web Protection > Known Attacks > Signatures
---	SignatureSearch	GET, POST	Web Protection > Known Attacks > Signatures
WebProtection/ KnownAttacks/ CustomSignatureGroup	---	GET, POST, PUT, DELETE	Web Protection > Known Attacks > Custom Signature Group
---	CustomSignatureGroup NewProtectionGroup Member	GET, POST, PUT, DELETE	Web Protection > Known Attacks > Custom Signature Group
WebProtection/ KnownAttacks/ CustomSignatureGroupList	---	GET	Web Protection > Known Attacks > Custom Signature Group
WebProtection/ KnownAttacks/ CustomSignature	---	GET, POST, PUT, DELETE	Web Protection > Known Attacks > Custom Signature
---	CustomSignatureTarget	GET, POST, PUT, DELETE	Web Protection > Known Attacks > Custom Signature

Resource name	Sub-resource name	Supported methods	Web UI location
WebProtection/ KnownAttacks/ CustomSignatureList	—	GET	Web Protection > Known Attacks > Custom Signature
WebProtection/ AdvancedProtection/ CustomPolicy	—	GET, POST, PUT, DELETE	Web Protection > Advanced Protection > Custom Policy
—	CustomPolicyNewCustom AccessItem	GET, POST, PUT, DELETE	Web Protection > Advanced Protection > Custom Policy
WebProtection/ AdvancedProtection/ CustomRule	—	GET, POST, PUT, DELETE	Web Protection > Advanced Protection > Custom Rule
—	CustomRuleNewCustom AccessRule	GET, POST, PUT, DELETE	Web Protection > Advanced Protection > Custom Rule
WebProtection/ AdvancedProtection/ CustomRuleList	—	GET	Web Protection > Advanced Protection > Custom Rule
WebProtection/ AdvancedProtection/ ContentTypeList	—	GET	Web Protection > Advanced Protection > Custom Rule
WebProtection/ AdvancedProtection/ PaddingOracleProtection	—	GET, POST, PUT, DELETE	Web Protection > Advanced Protection > Padding Oracle Protection
—	NewPaddingItem	GET, POST, PUT, DELETE	Web Protection > Advanced Protection > Padding Oracle Protection
WebProtection/ InputValidation/ ParameterValidation Policy	—	GET, POST, PUT, DELETE	Web Protection > Input Validation > Parameter Validation Policy
—	ParameterValidation PolicyNewParameter ValidationRule	GET, POST, PUT, DELETE	Web Protection > Input Validation > Parameter Validation Policy



Resource name	Sub-resource name	Supported methods	Web UI location
WebProtection/ InputValidation/ ParameterValidationRule	—	GET, POST, PUT, DELETE	Web Protection > Input Validation > Parameter Validation Rule
—	ParameterValidation RuleNewRule	GET, POST, PUT, DELETE	Web Protection > Input Validation > Parameter Validation Rule
WebProtection/ InputValidation/ HiddenFieldsPolicy	—	GET, POST, PUT, DELETE	Web Protection > Input Validation > Hidden Fields Policy
—	HiddenFieldsPolicy CreateHidden FieldsRule	GET, POST, PUT, DELETE	Web Protection > Input Validation > Hidden Fields Policy
WebProtection/InputValidation/ HiddenFieldsRule	—	GET, POST, PUT, DELETE	Web Protection > Input Validation > Hidden Fields Rule
—	PostURL	GET, POST, PUT, DELETE	Web Protection > Input Validation > Hidden Fields Rule
—	Fields	GET, POST, PUT, DELETE	Web Protection > Input Validation > Hidden Fields Rule
WebProtection/InputValidation/ HiddenFieldsRuleList	—	GET	Web Protection > Input Validation > Hidden Fields Rule
WebProtection/ InputValidation/ FileUploadRestriction Policy	—	GET, POST, PUT, DELETE	Web Protection > Input Validation > File Upload Restriction Policy
—	FileUploadRestriction PolicyNewFileUpload RestrictionPolicy	GET, POST, PUT, DELETE	Web Protection > Input Validation > File Upload Restriction Policy
WebProtection/ InputValidation/ FileUploadRestrictionRule	—	GET, POST, PUT, DELETE	Web Protection > Input Validation > File Upload Restriction Rule

Resource name	Sub-resource name	Supported methods	Web UI location
---	FileUploadRestrictionRuleItem	GET, POST, PUT, DELETE	Web Protection > Input Validation > File Upload Restriction Rule
WebProtection/Protocol/HTTPProtocolConstraints	---	GET, POST, PUT, DELETE	Web Protection > Protocol > HTTP Protocol Constraints
WebProtection/Protocol/HTTPConstraintsException	---	GET, POST, PUT, DELETE	Web Protection > Protocol > HTTP Constraints Exception
---	HTTPConstraintsExceptionNewHTTPConstraintsExceptionRule	GET, POST, PUT, DELETE	Web Protection > Protocol > HTTP Constraints Exception
WebProtection/Access/BruteForce	---	GET, POST, PUT, DELETE	Web Protection > Access > Brute Force
---	BruteForceNewLoginPage	GET, POST, PUT, DELETE	Web Protection > Access > Brute Force
WebProtection/Access/URLAccessPolicy	---	GET, POST, PUT, DELETE	Web Protection > Access > URL Access Policy
---	URLAccessPolicyNewURLAccessItem	GET, POST, PUT, DELETE	Web Protection > Access > URL Access Policy
WebProtection/Access/URLAccessRule	---	GET, POST, PUT, DELETE	Web Protection > Access > URL Access Rule
---	URLAccessRuleNewURLAccessCondition	GET, POST, PUT, DELETE	Web Protection > Access > URL Access Rule
WebProtection/Access/URLAccessRuleList	---	GET	Web Protection > Access > URL Access Rule

Resource name	Sub-resource name	Supported methods	Web UI location
WebProtection/Access/ PageAccess	—	GET, POST, PUT, DELETE	Web Protection > Access > Page Access
—	PageAccessNewRule	GET, POST, PUT, DELETE	Web Protection > Access > Page Access
WebProtection/Access/ StartPages	—	GET, POST, PUT, DELETE	Web Protection > Access > Start Pages
—	StartPagesNewPage	GET, POST, PUT, DELETE	Web Protection > Access > Start Pages
WebProtection/Access/ AllowMethodPolicy	—	GET, POST, PUT, DELETE	Web Protection > Access > Allow Method Policy
WebProtection/Access/ AllowMethodExceptions	—	GET, POST, PUT, DELETE	Web Protection > Access > Allow Method Exceptions
—	AllowMethod Exceptions NewAllowMethod Exception	GET, POST, PUT, DELETE	Web Protection > Access > Allow Method Exceptions
WebProtection/Access/ AllowMethodExceptionsList	—	GET	Web Protection > Access > Allow Method Exceptions
WebProtection/Access/ IPList	—	GET, POST, PUT, DELETE	Web Protection > Access > IP List
—	IPListCreateIPList PolicyMember	GET, POST, PUT, DELETE	Web Protection > Access > IP List
WebProtection/Access/ GeoIP	—	GET, POST, PUT, DELETE	Web Protection > Access > Geo IP
—	AddCountry	GET, POST, PUT, DELETE	Web Protection > Access > Geo IP

Resource name	Sub-resource name	Supported methods	Web UI location
WebProtection/Access/GeoIPExceptionsList	—	GET	Web Protection > Access > Geo IP Exceptions
WebProtection/Access/SeverityList	—	GET	
WebProtection/WebAnti-Defacement/AntiDefacement	—	GET, POST, PUT, DELETE	Web Protection > Web Anti-Defacement > Anti Defacement
WebProtection/WebAnti-Defacement/AntiDefacementBackupList	—	GET	Web Protection > Web Anti-Defacement > Anti Defacement
WebProtection/WebAnti-Defacement/AntiDefacementChangeList	—	GET	Web Protection > Web Anti-Defacement > Anti Defacement
WebProtection/WebAnti-Defacement/AntiDefacementTest	—	POST	Web Protection > Web Anti-Defacement > Anti Defacement
WebProtection/WebAnti-Defacement/AntiDefacementFileFilter	—	GET, POST, PUT, DELETE	Web Protection > Web Anti-Defacement > Anti Defacement File Filter
DoSProtection/Application/HTTPAccessLimit	—	GET, POST, PUT, DELETE	Dos Protection > Application > HTTP Access Limit
DoSProtection/Application/MaliciousIPs	—	GET, POST, PUT, DELETE	Dos Protection > Application > Malicious IPs
DoSProtection/Application/HTTPFloodPrevention	—	GET, POST, PUT, DELETE	Dos Protection > Application > HTTP Flood Prevention
DoSProtection/Network/TCPFloodPrevention	—	GET, POST, PUT, DELETE	Dos Protection > Network > TCP Flood Prevention

Resource name	Sub-resource name	Supported methods	Web UI location
DoSProtection/ DoSProtectionPolicy/ DoSProtectionPolicy	—	GET, POST, PUT, DELETE	Dos Protection > Dos Protection Policy > Dos Protection Policy
IPReputation/ IPReputation/Policy	—	GET, PUT	IP Reputation > IP Reputation > Policy
IPReputation/ IPReputation/Exceptions	—	GET, POST, PUT, DELETE	IP Reputation > IP Reputation > Exception
AutoLearn/ AutoLearnProfile/ AutoLearnProfile	—	GET, POST, PUT, DELETE	Auto Learn > Auto Learn Profile > Auto Learn Profile
AutoLearn/ AutoLearnReport/ AutoLearnReport	—	GET, POST, PUT, DELETE	Auto Learn > Auto Learn Report > Auto Learn Report
	Dictionaries	GET	Auto Learn > Auto Learn Report > Auto Learn Report
	Getnode	GET	Auto Learn > Auto Learn Report > Auto Learn Report
	Domain	GET, POST, PUT	Auto Learn > Auto Learn Report > Auto Learn Report
	GeneratePDF	GET	Auto Learn > Auto Learn Report > Auto Learn Report
	SubAttack	GET, POST, PUT	Auto Learn > Auto Learn Report > Auto Learn Report
	UrlPage	POST, PUT	Auto Learn > Auto Learn Report > Auto Learn Report
	ParamChange	POST, PUT	Auto Learn > Auto Learn Report > Auto Learn Report

Resource name	Sub-resource name	Supported methods	Web UI location
	AccessChange	POST, PUT	Auto Learn > Auto Learn Report > Auto Learn Report
	generateConfig	POST, PUT	Auto Learn > Auto Learn Report > Auto Learn Report
	AttackChange	POST, PUT	Auto Learn > Auto Learn Report > Auto Learn Report
AutoLearn/ AutoLearnProfile/ AutoLearnChart	—	GET	Auto Learn > Auto Learn Profile > Auto Learn Profile
AutoLearn/ PredefinedPattern/ DataTypeGroup	—	GET, POST, PUT, DELETE	Auto Learn > Predefined Pattern > Data Type Group
AutoLearn/ PredefinedPattern/ DataTypeGroupList	—	GET	Auto Learn > Predefined Pattern > Data Type Group
AutoLearn/ PredefinedPattern/ DataType	—	GET	Auto Learn > Predefined Pattern > Data Type
AutoLearn/ PredefinedPattern/ DataTypeList	—	GET	Auto Learn > Predefined Pattern > Data Type
AutoLearn/ PredefinedPattern/ URLPattern	—	GET	Auto Learn > Predefined Pattern > URL Pattern
AutoLearn/ PredefinedPattern/ SuspiciousURL	—	GET, POST, PUT, DELETE	Auto Learn > Predefined Pattern > Suspicious URL
AutoLearn/ PredefinedPattern/ SuspiciousURLList	—	GET	Auto Learn > Predefined Pattern > Suspicious URL
AutoLearn/ CustomPattern/DataType	—	GET, POST, PUT, DELETE	Auto Learn > Custom Pattern > Data Type

Resource name	Sub-resource name	Supported methods	Web UI location
AutoLearn/ CustomPattern/ CustomDataTypeList	—	GET	Auto Learn > Custom Pattern > Data Type
AutoLearn/ CustomPattern/ SuspiciousURLPolicy	—	GET, POST, PUT, DELETE	Auto Learn > Custom Pattern > Suspicious URL Policy
—	SuspiciousURLPolicy EditSuspicious URLRule	GET, POST, PUT, DELETE	Auto Learn > Custom Pattern > Suspicious URL Policy
AutoLearn/ CustomPattern/ SuspiciousURLPolicyList	—	GET	Auto Learn > Custom Pattern > Suspicious URL Policy
AutoLearn/ CustomPattern/ SuspiciousURLRule	—	GET, POST, PUT, DELETE	Auto Learn > Custom Pattern > Suspicious URL Rule
AutoLearn/ CustomPattern/ SuspiciousURLRuleList	—	GET	Auto Learn > Custom Pattern > Suspicious URL Policy
AutoLearn/ ApplicationTemplates/ ApplicationPolicy	—	GET, POST, PUT, DELETE	Auto Learn > Application Template > Application Policy
—	ApplicationPolicy NewApplicationRule	GET, POST, PUT, DELETE	Auto Learn > Application Template > Application Policy
AutoLearn/ ApplicationTemplates/ ApplicationPolicyList	—	GET	Auto Learn > Application Template > Application Policy
AutoLearn/ ApplicationTemplates/ URLReplacer	—	GET, POST, PUT, DELETE	Auto Learn > Application Template > URL Replacer

Resource name	Sub-resource name	Supported methods	Web UI location
AutoLearn/ ApplicationTemplates/ URLReplacerList	—	GET	Auto Learn > Application Template > URL Replacer
WebVulnerabilityScan/ WebVulnerabilityScan/ WebVulnerability ScanPolicy	—	GET, POST, PUT, DELETE	Web Vulnerability Scan > Web Vulnerability Scan > Web Vulnerability Scan Policy
WebVulnerabilityScan/ WebVulnerabilityScan/ WebVulnerability ScanProfile	—	GET, POST, PUT, DELETE	Web Vulnerability Scan > Web Vulnerability Scan > Web Vulnerability Scan Profile
WebVulnerabilityScan/ WebVulnerabilityScan/ WebVulnerabilityScan Schedule	—	GET, POST, PUT, DELETE	Web Vulnerability Scan > Web Vulnerability Scan > Web Vulnerability Scan Schedule
WebVulnerabilityScan/ WebVulnerabilityScan/ ScanHistory	—	GET, POST, PUT, DELETE	Web Vulnerability Scan > Web Vulnerability Scan > Scan History
LogReport/LogPolicy/ EmailPolicy	—	GET, POST, PUT, DELETE	Log & Report > Log Policy > Email Policy
LogReport/LogPolicy/ AlertMailList	—	GET	Log & Report > Log Policy > Email Policy
LogReport/LogPolicy/ SyslogPolicy	—	GET, POST, PUT, DELETE	Log & Report > Log Policy > Syslog Policy
—	SyslogServer	GET, POST, PUT, DELETE	Log & Report > Log Policy > Syslog Policy
LogReport/LogPolicy/ SIEMPolicy	—	GET, POST, PUT, DELETE	Log & Report > Log Policy > SIEM Policy



Resource name	Sub-resource name	Supported methods	Web UI location
LogReport/LogPolicy/ FortiAnalyzerPolicy	—	GET, POST, PUT, DELETE	Log & Report > Log Policy > FortiAnalyzer Policy
LogReport/LogPolicy/ TriggerPolicy	—	GET, POST, PUT, DELETE	Log & Report > Log Policy > Trigger Policy
LogReport/LogPolicy/ TriggerList	—	GET	Log & Report > Log Policy > Trigger Policy
LogReport/LogConfig/ GlobalLogSettings	—	GET, PUT	Log & Report > Log Config > Global Log Settings
LogReport/LogConfig/ OtherLogSettings	—	GET, PUT	Log & Report > Log Config > Other Log Settings
LogReport/LogConfig/ SensitiveDataLogging	—	GET, POST, PUT, DELETE	Log & Report > Log Config > Sensitive Data Logging
LogReport/LogConfig/ SensitiveDataLogging RuleType	—	GET, POST, PUT, DELETE	Log & Report > Log Config > Sensitive Data Logging
LogReport/LogAccess/ Event?offset=0&size=30 <b>Cookie:</b> LogName=eolog.log <b>Parameters:</b> offset – Start line ID size – Total number of lines on each page	—	GET	Log & Report > Log Access > Event
LogReport/LogAccess/ Attack?offset=0&size=30 <b>Cookie:</b> LogName=alog.log <b>Parameters:</b> offset – Start line ID size – Total number of lines on each page	—	GET	Log & Report > Log Access > Attack

Resource name	Sub-resource name	Supported methods	Web UI location
LogReport/LogAccess/ LogAccessAttackDetail	—	GET	Log & Report > Log Access > Attack
LogReport/LogAccess/ AggregatedAttack? day=3 &currentPage=1 &startLine=0  <b>Cookie:</b> LogName=a.log.log  <b>Parameters:</b>  day – Number of days on each page  currentPage – Number of page to display  startLine – Start line number	—	GET	Log & Report > Log Access > Aggregated Attack
LogReport/LogAccess/ Traffic?offset=0&size=30  <b>Cookie:</b> LogName=t.log.log  <b>Parameters:</b>  offset – Start line ID  size – Total number of lines on each page	—	GET	Log & Report > Log Access > Traffic
LogReport/LogAccess/ LogAccessTrafficDetail	—	GET	Log & Report > Log Access > Traffic
LogReport/LogAccess/ LogDownload	—	GET	
LogReport/LogAccess/ LogManagement	—	GET, DELETE	
LogReport/LogAccess/ LogAccessEventPermission	—	GET	Log & Report > Log Access > Download
LogReport/LogAccess/ Download	—	GET	Log & Report > Log Access > Download
LogReport/LogAccess/ DownloadFile	—	GET	Log & Report > Log Access > Download

Resource name	Sub-resource name	Supported methods	Web UI location
LogReport/ReportConfig/ ReportConfig	—	GET, POST, PUT, DELETE	Log & Report > Report Config > Report Config
LogReport/ReportConfig/ ReportConfig	—	GET, POST, PUT, DELETE	Log & Report > Report Config > Report Config
LogReport/ReportConfig/ ReportConfigCustomLogoList	—	GET	Log & Report > Report Config > Report Config
LogReport/ReportConfig/ ReportConfigLogoUpload	—	POST	Log & Report > Report Config > Report Config
LogReport/ReportBrowse/ ReportBrowse	—	GET	Log & Report > Report Browse > Report Browse
LogReport/Monitor/ data_analytics	—	GET	Log & Report > Monitor > Data Analytics
—	time_trend	GET	Log & Report > Monitor > Data Analytics
—	type_view	GET	Log & Report > Monitor > Data Analytics
—	data_view	GET	Log & Report > Monitor > Data Analytics
—	attack	GET	Log & Report > Monitor > Data Analytics
LogReport/Monitor/ DataAnalyticsPermission	—	GET	Log & Report > Monitor > Data Analytics
LogReport/Monitor/ BotAnalysis	—	GET	Log & Report > Monitor > Bot Analysis

Resource name	Sub-resource name	Supported methods	Web UI location
LogReport/Monitor/ BlockedIPs	—	GET	Log & Report > Monitor > Blocked IPs

## Examples of changing settings

### Retrieve all static routes (GET)

#### Command

```
curl -H "Authorization: YWRtaW46" -k
  "https://172.22.10.74:90/api/v1.0/System/Network/StaticRoute"
```

#### Request header

```
GET https://172.22.10.74:90/api/v1.0/System/Network/StaticRoute HTTP/1.1
User-Agent: Fiddler
Authorization: YWRtaW46
Host: 172.22.10.74:90
```

#### Response

```
HTTP/1.1 200 OK
Server: openresty/1.5.8.1
Date: Thu, 14 Aug 2014 17:03:34 GMT
Content-Type: application/json
Connection: keep-alive
Content-Length: 115

[
  {
    "_id": 1,
    "id": 1,
    "destinationIpMask": "0.0.0.0/0",
    "gateway": "172.22.10.1",
    "interface": port1
  }
]
```

### Create a new static route (POST)

#### Command

```
curl -X POST -H "Authorization: YWRtaW46" -H "ContentType: application/json" -k -d '
  {"destinationIpMask": "0.0.0.0/0", "gateway": "172.22.10.1", "interface": "port1"}'
  "https://172.22.10.74:90/api/v1.0/System/Network/StaticRoute"
```

## Request header

```
POST https://172.22.10.74:90/api/v1.0/System/Network/StaticRoute HTTP/1.1
User-Agent: Fiddler
Authorization: YWRtaW46
Host: 172.22.10.74:90
Content-Length: 92
```

```
{
  "destinationIpMask": "0.0.0.0/0",
  "gateway": "172.22.10.1",
  "interface": port1
}
```

## Response

```
HTTP/1.1 200 OK
Server: openresty/1.5.8.1
Date: Thu, 14 Aug 2014 17:05:11 GMT
Content-Type: application/json
Connection: keep-alive
Content-Length: 94
```

```
{
  "destinationIpMask": "0.0.0.0/0",
  "gateway": "172.22.10.1",
  "interface": port1,
  "_id": 1
}
```

## Update an existing static route (PUT)

### Command

```
curl -X PUT -H "Authorization: YWRtaW46" -H "ContentType: application/json" -k -d '{"_id":
  "1","destinationIpMask": "0.0.0.0/0","gateway": "172.22.10.2","interface": "port1"}'
  "https://172.22.10.74:90/api/v1.0/System/Network/StaticRoute/1"
```

### Request header

```
PUT https://172.22.10.74:90/api/v1.0/System/Network/StaticRoute/1 HTTP/1.1
User-Agent: Fiddler
Authorization: YWRtaW46
Host: 172.22.10.74:90
Content-Length: 92
```

```
{
  "destinationIpMask": "0.0.0.0/0",
  "gateway": "172.22.10.2",
  "interface": port1
}
```

## Response

```
HTTP/1.1 200 OK
Server: openresty/1.5.8.1
Date: Thu, 14 Aug 2014 17:05:41 GMT
Content-Type: application/json
Connection: keep-alive
Content-Length: 94
```

```
{
  "destinationIpMask": "0.0.0.0/0",
  "gateway": "172.22.10.2",
  "interface": port1,
  "_id": 2
}
```

## Delete an existing static route (DELETE)

### Command

```
curl -k -X DELETE -H "Authorization: YWRtaW46"
  "https://172.22.10.74:90/api/v1.0/System/Network/StaticRoute/1"
```

### Request header

```
DELETE https://172.22.10.74:90/api/v1.0/System/Network/StaticRoute/1 HTTP/1.1
User-Agent: Fiddler
Authorization: YWRtaW46
Host: 172.22.10.74:90
```

### Response

```
HTTP/1.1 200 OK
Server: openresty/1.5.8.1
Date: Thu, 14 Aug 2014 17:06:51 GMT
Content-Type: application/json
Connection: keep-alive
Content-Length: 18
```

```
{
  "affected": 1
}
```

## Request failures

### Unsupported method

If a request fails because the method is unsupported, the HTTP response code is 405 (Not Allowed).

For example:

## Command

```
curl -k -H "Authorization: YWRtaW46"  
"https://172.22.10.74:90/api/v1.0/System/Maintenance/RestoreConfiguration"
```

## Request header

```
GET https://172.22.10.74:90/api/v1.0/System/Maintenance/RestoreConfiguration HTTP/1.1  
User-Agent: Fiddler  
Authorization: YWRtaW46  
Host: 172.22.10.74:90
```

## Response

```
HTTP/1.1 405 Not Allowed  
Server: openresty/1.5.8.1  
Date: Thu, 14 Aug 2014 17:08:25 GMT  
Content-Type: text/html  
Content-Length: 178  
Connection: keep-alive  
  
<html>  
<head><title>405 Not Allowed</title></head>  
<body bgcolor="white">  
<center><h1>405 Not Allowed</h1></center>  
<hr><center>openresty/1.5.8.1</center>  
</body>  
</html>
```

## Other failure

If a RESTful API request fails for any other reason, the response contains the application error code and the HTTP response code 500 (Internal Server Error).

For example:

## Command

```
curl -X POST -H "Authorization: YWRtaW46" -H "ContentType: application/json" -k -d '  
{"destinationIpMask": "0.0.0.0/0", "gateway": "172.22.10.3", "interface": "port1"}'  
"https://172.22.10.74:90/api/v1.0/System/Network/StaticRoute"
```

## Request header

```
POST https://172.22.10.74:90/api/v1.0/System/Network/StaticRoute HTTP/1.1  
User-Agent: Fiddler  
Authorization: YWRtaW46  
Host: 172.22.10.74:90  
Content-Length: 92  
  
{  
  "destinationIpMask": "0.0.0.0/0",  
  "gateway": "172.22.10.3",  
  "interface": port1  
}
```

### Response

```
HTTP/1.1 500 Internal Server Error
Server: openresty/1.5.8.1
Date: Thu, 14 Aug 2014 17:07:34 GMT
Content-Type: application/json
Transfer-Encoding: chunked
Connection: keep-alive
```

```
{
  "destinationIpMask": "0.0.0.0/0",
  "gateway": "172.22.10.3",
  "interface": port1,
  "msg": "Duplicate IP address"
}
```

## Manipulating FortiWeb CLI through RESTful API

With a special API interface being introduced, FortiWeb's CLI (Command Line Interface) becomes one of the resources in the FortiWeb REST architecture. Just as normal usages of the REST API accessing and configuring FortiWeb's resources (the states and functions), the RESTful API interface of FortiWeb CLI provides the necessary identifier, method and content types for clients to manipulate FortiWeb CLI through a REST architecture (see [Resource name, URL format and supported method](#) and [Control messages](#)).

### Resource name, URL format and supported method

As the usage of the RESTful API of other FortiWeb's resources, it requires a unique resource name, specified URL format and method in the requests that clients send for connecting the API interface of FortiWeb CLI.

The resource name used for FortiWeb CLI is **cli-direct-view** and the URL format is:

```
https://<server_name>/api/<api_version>/cli-direct-view
```

where:

- <server\_name> is the name or IP address of a FortiWeb with a port value of 90.
- <api\_version> is the API version (for example, v1.0)

**POST** is the only method supported by the API for clients sending requests.

### Control messages

Messages sent within the requests must include enough information to specify a CLI command to be manipulated and describe how it is to be processed. The control message consists of a **path/child\_path**, **mkey/child\_mkey** and **action**, which indicates the command objects, specific record and the operation respectively.

All the messages are sent as HTTP POST data and they must be represented in JSON format.

#### path & child\_path

Clients can manipulate all the objects of the FortiWeb command `config` (see [FortiWeb CLI Reference](#)). `path` is the parameter that tells FortiWeb the objects that clients would like to manipulate.



For any command formed like `config object_item1 object_item2`, the value of `path` consists of the two object items and a slash character in the format:

```
<object_item1>/<object_item2>
```

Here are some examples of the API path:

CLI command & objects	API path
<code>config log attack-log</code>	<code>log/attack-log</code>
<code>config router static</code>	<code>router/static</code>
<code>config server-policy policy</code>	<code>server-policy/policy</code>
<code>config system admin</code>	<code>system/admin</code>
<code>config user local-user</code>	<code>user/local-user</code>
<code>config waf cookie-security</code>	<code>waf/cookie-security</code>

`child_path` is the parameter used to indicate a sub-object of a command object when you are manipulating its configuration sub-table. For example, each start page rule (command `config waf start-pages`) has sub-rules defining related information of the protected hosts. Manipulating the sub-rules of a start page rule means to manipulate its sub-object (`config start-page-list`). `child_path` in a request tells FortiWeb the sub-object that a client is going to manipulate.

## action

The configurations for most CLI command objects are constructed in table and sub-table structures. `action` here indicates the operations to the configuration records of the tables and sub-tables of a command object. The supported actions are as followings:

Values of action	Operation description
<code>get_table</code>	Retrieve all configuration records of a command object.
<code>set_table</code>	Create a new configuration record to a command object. If primary key ( <code>mkey</code> ) of a existing configuration record is specified, it will update the specified configuration record.
<code>search_table</code>	Search a configuration record by the specified primary key ( <code>mkey</code> ).
<code>delete_table</code>	Delete a configuration record by the specified primary key ( <code>mkey</code> ).
<code>get_child_table</code>	Retrieve all configuration sub-records of a command object.

Values of action	Operation description
set_child_table	Create a new configuration sub-record to a command object. If primary key ( <code>child_mkey</code> ) of a existing configuration sub-record is specified, it will update the specified configuration sub-record.
search_child_table	Search a configuration sub-record by the specified primary key ( <code>child_mkey</code> ).
delete_child_table	Delete a configuration sub-record by the specified primary key ( <code>child_mkey</code> ).

### mkey & child\_mkey

For actions like updating, searching and deleting a record/sub-record (`set_table/set_child_table`, `search_table/search_child_table`, `delete_table/delete_child_table`), clients must specify the record to FortiWeb through parameters **mkey** and **mkey\_child**, so that they can perform the action to the specific records.

**mkey** : the parameter used to tell FortiWeb the primary key of a records of a table (command object) that the `path` indicates.

**mkey\_child** : the parameter used to tell FortiWeb the primary key of a records of a sub-table (command sub-object) that the `child_path` indicates.

See [Examples of manipulating CLI through cli\\_direct\\_view](#) for usages of the control messages.

## Examples of manipulating CLI through cli\_direct\_view

### Retrieve all static routes

#### Command

```
curl -X POST -H "Authorization: YWRtaW46" -H "ContentType: application/json" -k -d '{"path":"router/static","action":"get_table"}' "https://10.200.6.214:90/api/v1.0/cli-direct-view"
```

#### Request header

```
POST https://10.200.6.214:90/api/v1.0/cli-direct-view HTTP/1.1
User-Agent: FortiWEB-Central-management
Authorization: YWRtaW46
Host: 10.200.6.214:90
Content-Length: XXX
{
  "path" : "route/static",
  "action" : "get_table"
}
```

#### Response

```
HTTP/1.1 200 OK
```

```
Server: openresty/1.5.8.1
Date: Thu, 14 Aug 2016 17:06:51 GMT
Content-Type: application/json
Connection: keep-alive
Content-Length: XXX
[
  {
    "dst" : "0.0.0.0/0",
    "gateway" : "172.22.10.1",
    "device" : "port132",
    "id": "1"
  }
  {
    "destinationIpMask" : "10.200.0.0 255.255.255.0",
    "gateway" : 172.22.10.1",
    "interface" : 1,
    "id" : "2"
  }
]
```

## Create a new static route

### Command

```
curl -X POST -H "Authorization: YWRtaW46" -H "ContentType: application/json" -
k -d '{"path":"router/static","action": "set_table","data":
{"dst":"10.100.0.0 255.255.255.0","gateway":"10.100.0.4","device":"port3"}}
' "https://10.200.6.214/api/v1.0/cli-direct-view"
```

### Request header

```
POST https://10.200.6.214:90/api/v1.0/cli-direct-view HTTP/1.1
User-Agent: FortiWEB-Central-management
Authorization: YWRtaW46
Host: 10.200.6.214:90
Content-Length: XXX
{
  "path" : "route/static",
  "action" : "set_table",

  data:
  {
    "dst" : "10.100.0.0 255.255.255.0",
    "gateway" : "10.100.0.4",
    "device" : "port3",
    "id" : "3"
  }
}
```

### Response

```
HTTP/1.1 200 OK
Server: openresty/1.5.8.1
Date: Thu, 14 Aug 2016 17:06:51 GMT
Content-Type: application/json
Connection: keep-alive
```

```
Content-Length: XXX
{
  "dst" : "10.100.0.0 255.255.255.0",
  "gateway" : "10.100.0.4",
  "device" : "port3",
  "id" : "3"
}
```

### Update an existing static route

#### Command

```
curl -X POST -H "Authorization: YWRtaW46" -H "ContentType: application/json" -k -d '{
  "path": "router/static", "action": "set_table", "mkey": "3", "data": {
    "dst": "10.100.0.0 255.255.255.0", "gateway": "10.100.0.6", "device": "port3"
  }
}'
https://10.200.6.214:90/api/v1.0/cli-direct-view"
```

#### Request header

```
POST https://10.200.6.214:90/api/v1.0/cli-direct-view HTTP/1.1
User-Agent: FortiWEB-Central-management
Authorization: YWRtaW46
Host: 10.200.6.214:90
Content-Length: XXX
{
  "path" : "route/static",
  "action" : "set_table",
  "mkey" : "3",

  data:
  {
    "dst" : "10.100.0.0 255.255.255.0",
    "gateway" : "10.100.0.6",
    "interface" : "port3"
  }
}
```

#### Response

```
HTTP/1.1 200 OK
Server: openresty/1.5.8.1
Date: Thu, 14 Aug 2016 17:06:51 GMT
Content-Type: application/json
Connection: keep-alive
Content-Length: XXX
{
  "dst" : "10.100.0.0 255.255.255.0",
  "gateway" : "10.100.0.6",
  "interface" : "port3"
  "id" : "3"
}
```

## Search an existing static route

### Command

```
curl -X POST -H "Authorization: YWRtaW46" -H "ContentType: application/json" -k -d '{
  "path": "router/static", "action": "search_table", "mkey": "3"
}'
https://10.200.6.214:90/api/v1.0/cli-direct-view"
```

### Request header

```
POST https://10.200.6.214:90/api/v1.0/cli-direct-view HTTP/1.1
User-Agent: FortiWEB-Central-management
Authorization: YWRtaW46
Host: 10.200.6.214:90
Content-Length: XXX
{
  "path" : "route/static",
  "action" : "search_table",
  "mkey" : "3"
}
```

### Response

```
HTTP/1.1 200 OK
Server: openresty/1.5.8.1
Date: Thu, 14 Aug 2016 17:06:51 GMT
Content-Type: application/json
Connection: keep-alive
Content-Length: XXX
{
  "dst" : "10.100.0.0 255.255.255.0",
  "gateway" : "10.100.0.6",
  "interface" : "port3"
  "id" : "3"
}
```

## Delete an existing static route

### Command

```
curl -X POST -H "Authorization: YWRtaW46" -H "ContentType: application/json" -k -d '{
  "path": "router/static", "action": "delete_table", "mkey": "1"
}'
https://10.200.6.214:90/api/v1.0/cli-direct-view"
```

### Request header

```
POST https://10.200.6.214:90/api/v1.0/cli-direct-view HTTP/1.1
User-Agent: FortiWEB-Central-management
Authorization: YWRtaW46
Host: 10.200.6.214:90
Content-Length: XXX
{
  "path" : "route/static",
  "action" : "delete_table",
  "mkey" : "1"
}
```

## Response

```
HTTP/1.1 200 OK
Server: openresty/1.5.8.1
Date: Thu, 14 Aug 2016 17:06:51 GMT
Content-Type: application/json
Connection: keep-alive
Content-Length: XXX
{
  "affected" : 1
}
```

## Retrieve all sub-rules of a start page rule

### Command

```
curl -X POST -H "Authorization: YWRtaW46" -H "ContentType: application/json" -
k -d '{"path":"waf/start-pages","action":"get_child_
table","mkey":"startpage1","child_path":"start-page-list"}'
"https://10.200.6.214:90/api/v1.0/cli-direct-view"
```

### Request header

```
POST https://10.200.6.214:90/api/v1.0/cli-direct-view HTTP/1.1
User-Agent: FortiWEB-Central-management
Authorization: YWRtaW46
Host: 10.200.6.214:90
Content-Length: XXX
{
  "path" : "waf/start-pages",
  "action" : "get_child_table",
  "mkey" : "startpage1",
  "child_path": "start-page-list"
}
```

## Response

```
HTTP/1.1 200 OK
Server: openresty/1.5.8.1
Date: Thu, 14 Aug 2016 17:06:51 GMT
Content-Type: application/json
Connection: keep-alive
Content-Length: XXX
[
  {
    "id" : 1,
    "request-file" : "/test1",
    "action" : "alert",
    "severity" : "low",
    "trigger" : ""
  }
  {
    "id" : 2,
    "request-file" : "/test2",
    "action" : "alert",
    "severity" : "low",
  }
]
```

```
    "trigger" : ""
  }
]
```

## Create a new sub-rule to a start page rule

### Command

```
curl -X POST -H "Authorization: YWRtaW46" -H "ContentType: application/json" -k -d '{"path":"waf/start-pages","action": "set_child_table","mkey":"startpage1","child_path":"start-page-list","data":{"request-file":"/test3","action": "alert","severity":"low","trigger":""}}' https://10.200.6.214:90/api/v1.0/cli-direct-view"
```

### Request header

```
POST https://10.200.6.214:90/api/v1.0/cli-direct-view HTTP/1.1
User-Agent: FortiWEB-Central-management
Authorization: YWRtaW46
Host: 10.200.6.214:90
Content-Length: XXX
{
  "path" : "waf/start-pages",
  "action" : "set_child_table",
  "mkey" : "startpage1",
  "child_path" : "start-page-list",

  data:
  {
    "request-file" : "/test3",
    "action" : "alert",
    "severity" : "low",
    "trigger" : ""
  }
}
```

### Response

```
HTTP/1.1 200 OK
Server: openresty/1.5.8.1
Date: Thu, 14 Aug 2016 17:06:51 GMT
Content-Type: application/json
Connection: keep-alive
Content-Length: XXX
{
  "id" : 3,
  "request-file" : "/test3",
  "action" : "alert",
  "severity" : "low",
  "trigger" : ""
}
```

## Update a sub-rule of a start page rule

### Command

```
curl -X POST -H "Authorization: YWRtaW46" -H "ContentType: application/json" -k -d '{
  "path": "waf/start-pages", "action": "set_child_table", "mkey": "startpagel", "child_
  path": "start-page-list", "child_mkey": "1", "data": {"request-
  file": "/test4", "action": "alert", "severity": "low", "trigger": ""}}'
https://10.200.6.214:90/api/v1.0/cli-direct-view"
```

### Request header

```
POST https://10.200.6.214:90/api/v1.0/cli-direct-view HTTP/1.1
User-Agent: FortiWEB-Central-management
Authorization: YWRtaW46
Host: 10.200.6.214:90
Content-Length: XXX
{
  "path" : "waf/start-pages",
  "action" : "set_child_table",
  "mkey" : "startpagel",
  "child_path" : "start-page-list",
  "child_mkey" : "1",

  data:
  {
    "request-file" : "/test4",
    "action" : "alert",
    "severity" : "low",
    "trigger" : ""
  }
}
```

### Response

```
HTTP/1.1 200 OK
Server: openresty/1.5.8.1
Date: Thu, 14 Aug 2016 17:06:51 GMT
Content-Type: application/json
Connection: keep-alive
Content-Length: XXX
{
  "id" : 1,
  "request-file" : "/test4",
  "action" : "alert",
  "severity" : "low",
  "trigger" : ""
}
```

## Search an existing sub-rule of a start page rule

### Command

```
curl -X POST -H "Authorization: YWRtaW46" -H "ContentType: application/json" -k -d '{
  "path": "waf/start-pages", "action": "search_child_table", "mkey": "startpagel", "child_
```



```
path":"start-page-list","child_mkey":"3"}' "https://10.200.6.214:90/api/v1.0/cli-direct-view"
```

## Request header

```
POST https://10.200.6.214:90/api/v1.0/cli-direct-view HTTP/1.1
User-Agent: FortiWEB-Central-management
Authorization: YWRtaW46
Host: 10.200.6.214:90
Content-Length: XXX
{
  "path" : "waf/start-pages",
  "action" : "search_child_table",
  "mkey" : "startpage1",
  "child_path" : "start-page-list",
  "child_mkey" : "3",
}
```

## Response

```
HTTP/1.1 200 OK
Server: openresty/1.5.8.1
Date: Thu, 14 Aug 2016 17:06:51 GMT
Content-Type: application/json
Connection: keep-alive
Content-Length: XXX
{
  "id" : 3,
  "request-file" : "/test3",
  "action" : "alert",
  "severity" : "low",
  "trigger" : ""
}
```

## Delete a sub-rule of a start page rule

### Command

```
curl -X POST -H "Authorization: YWRtaW46" -H "ContentType: application/json" -k -d '{
  "path":"waf/start-pages","action":"delete_child_table","mkey":"startpage1","child_
  path":"start-page-list","child_mkey":"1"}' "https://10.200.6.214:90/api/v1.0/cli-direct-view"
```

## Request header

```
POST https://10.200.6.214:90/api/v1.0/cli-direct-view HTTP/1.1
User-Agent: FortiWEB-Central-management
Authorization: YWRtaW46
Host: 10.200.6.214:90
Content-Length: XXX
{
  "path" : "waf/start-pages",
  "action" : "delete_child_table",
  "mkey" : "startpage1",
  "child_path" : "start-page-list",
  "child_mkey" : "1",
}
```

```
}
```

### Response

```
HTTP/1.1 200 OK
Server: openresty/1.5.8.1
Date: Thu, 14 Aug 2016 17:06:51 GMT
Content-Type: application/json
Connection: keep-alive
Content-Length: XXX
{
  "affected": 1
}
```



High Performance Network Security



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